

# EUROPEAN PATENT OFFICE

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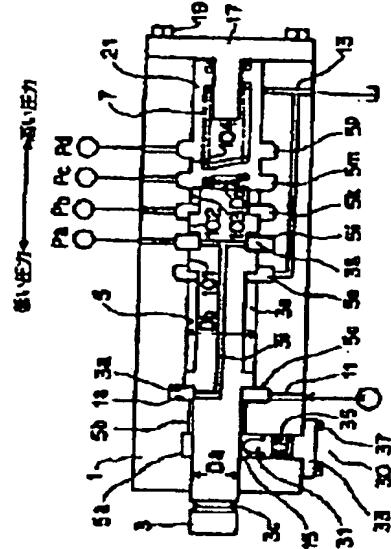
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APPLICANT : KOMATSU LTD;

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**TITLE : AUTOMATIC PRESSURE RANGE  
SELECTING DEVICE FOR OIL  
PRESSURE MEASURING GAUGE**



**ABSTRACT :** PURPOSE: To measure oil pressure correctly/accurately by enabling automatic selection of an optimum range according to oil pressure to be measured without changing oil pressure gauges.

**CONSTITUTION:** Pressure gauges to measure pressure continuing to a groove part 5 of a body are installed in order from a high pressure measuring gauge  $P_d$  to a low pressure measuring gauge  $P_a$ , and a groove part 3c of a spool 3 is inserted into a detent mechanism 30, and the spool 3 is locked. Pressure oil flowed from a communicating hole 11 acts on a locking pin 31 through a groove part 5a, and the locking pin 31 in the detent mechanism 30 is disconnected from the groove part 3c, and the spool 3 moves leftward by means of a spring 7. The spool 3 can balance by means of force generated by the product of difference between a cross sectional area  $A_b$  and a cross sectional area  $A_a$  and pressure ( $P$ ) to be measured. Pressure of a measurement source to be measured is displayed on a pressure gauge in a groove where the spool 3 and the body 1 meet together, so that the pressure can be measured by means of an optimum pressure gauge. Since the spool moves to a position corresponding to the pressure so as to carry out measurement, second time manhour becomes unnecessary, so that the manhour can be reduced.

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